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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,345	12/18/2000	Minoru Mukaida	103152-2	5183

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EXAMINER	
RICKMAN, HOLLY C	
ART UNIT	PAPER NUMBER
1773	

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/740,345	MUKAIDA, MINORU	
	Examiner	Art Unit	
	Holly Rickman	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *28-47* is/are pending in the application.

4a) Of the above claim(s) *39-47* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *28-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/26/06 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 28-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitation requiring a "film being substantially liquid" in claim 28 introduces new matter. The specification only appears to provide support for the term "nearly liquid" and "almost liquid" (see p. 18, lines 12-27). It is not clear to the examiner where there is support for "substantially liquid."

Claim Interpretation

4. The limitation "substantially liquid" has been interpreted in light of the disclosure to mean flexible or not completely hardened. If Applicant disagrees with this interpretation, the examiner asks that the record be clarified with specific references given to portions of the original disclosure supporting applicant's interpretation of the limitation.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 28-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Craven (U53878147) in view of The Encyclopedia of Polymer Science, Vol. 3, November 1985, pg. 552.

Craven teaches a composition that is used to increase the friction of surfaces on ice, particularly the surfaces of automobile and truck tires (column 1, lines 5-8). The composition is a mixture of a binder and fine particles that possesses excellent adherence to rubber substrates and provides a high level of friction on icy roads (column 1, lines 21-25). The composition comprises 5-25% by weight of a soluble elastomer, 43-92.99% by weight of a solvent for the elastomer, and 2-20% by weight of dispersed inorganic particles having a particle size of about .2-105 gm, Craven teaches that suitable elastomers for the coating composition include polyurethane, as well

as a number of other elastomers, Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to select polyurethane as the flexible polymeric binder, as polyurethane is taught by Craven to be equivalent to the other binders listed. Craven teaches the addition of particles having an average diameter in the range of about 0.2-105microns. As 0.2 microns is completely encompassed by the claimed range, Craven meets the limitations directed to average particle diameter.

With respect to the claimed viscosity limitation, Craven does not specifically disclose this feature of the claims. However, it is noted that Craven does teach the application of the coating via various methods, including brushing, dipping, spraying, etc. (column 2, lines 63-68). Furthermore, The Encyclopedia of Polymer Science, Vol. 3, November 1985, pg. 552 teaches common coating methods and the viscosity range of compounds that are coated utilizing those methods. From this disclosure, the examiner takes the position that the viscosity of the coating is a result effective variable. It would have been obvious to one with ordinary skill in the art to optimize the viscosity of the coating of Craven to meet the requirements of the coating method to be utilized. Regarding the applicants claimed thickness requirement, the examiner notes that Craven teaches that the thickness of the film is "about 0.5 mils." It is the examiners position that "about .5 mils" encompasses .4 mils, which is equivalent to applicants claimed 10 microns. Thus, Craven meets this limitation. However, should applicant traverse this argument, it is noted that Craven teaches that a film that is 1-2 mils thick will typically remain on the tire for 5-10 miles, depending on road conditions. Thus, the thickness of the film is a result effective variable, with a thinner film remaining on the tire for shorter distances, and vice versa. Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to control

the thickness of the Craven film to suit the distance to be traveled. Shorter distances would require a thinner coating, thereby conserving material.

Claim 30 requires the antislipping agent to comprise silicon oxide, aluminum oxide, cerium oxide, silicon carbide, or a fine particulate organic material. Craven teaches that suitable materials for the particulate material include aluminum oxide, silica (synonymous with silicon oxide), silicon carbide, and other inorganic particles (column 2, lines 8-22). Claims 31-33 further limit the viscosity range of the coating. The examiner maintains that it would be obvious to alter the viscosity of the coating to enable a desired coating method to be utilized, as set forth above.

Claims 34-35 further limit the thickness of the film. The examiner maintains that coating thickness is a result effective parameter. Thus, it would have been obvious to one of ordinary skill in the art to determine the optimal coating thickness depending on the desired life of the coating.

Claim 38 requires the particles to have a diameter in the range of 10-100nm. The examiner notes that Craven teaches that the particles have a suitable particle size of "about" 0.2 microns. As "about" 0.2 encompasses 0.1 microns (equivalent to 100nm), the limitations of claim 38 are met.

With regard to the newly added limitation requiring a “flexible film” being “substantially liquid”, the examiner takes the position that the polyurethane layer having a thickness within the claimed range taught by Craven inherently satisfies this limitation. Flexible is a relative term which is largely determined by the composition of a particular material and the thickness of that material. Because Craven teaches the use of the same material as claimed (polyurethane) and a thickness for the polyurethane layer within the claimed range, one of ordinary skill in the art

would expect that it would meet the aforementioned limitations directed to flexibility and liquidity.

It has been held that where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the burden of proof is shifted to applicant to show that prior art products do not necessarily or inherently possess characteristics of claimed products where the rejection is based on inherency under 35 USC §102 or on prima facie obviousness under 35 USC §103, jointly or alternatively. *In re Best, Bolton, and Shaw*, 195 USPQ 430. (CCPA 1977).

The examiner takes the position that the recitation in claim 29 requiring that "at least a portion of antislipping agent is partially exposed throughout a surface of the film, regardless of whether the film has been brought into direct contact with another surface", is essentially defining a process by which the antislip surface is made. In other words, this limitation implies that the film can be made by a process which does not have to include bringing the film into contact with another surface. This process limitation in an article claim has been considered insofar as it limits the structure of the article. The process portion of this limitation does not add any structural or compositional elements to the claimed article. Thus, it does not patentably distinguish the present claims over the prior art.

7. Applicant's arguments filed 4/26/06 have been fully considered but they are not persuasive.

Applicant argues that the present amendments distinguish over the applied prior art to Craven. Applicant argues that the film of Craven is not flexible or substantially liquid as now

required by the claims. The examiner maintains that the reference inherently meets these limitations for the reasons set forth in the rejection, above.

Applicant argues that claim 29 further distinguishes over Craven by requiring that the antislip agent is always exposed "regardless of whether the film has been brought into contact with another surface." The examiner maintains that Craven suggests a structure wherein the antislip particles are exposed. Craven teaches that this happens via wearing down the film matrix that contacts another surface. The limitation "regardless of whether the film has been brought into contact with another surface" merely describes the process by which the particles are exposed. In other words, the particles are exposed whether they are brought into contact with another surface or not brought into contact with another surface. The examiner maintains that **structurally and compositionally**, Craven appears to be substantially the same as the claimed structure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Rickman whose telephone number is (571) 272-1514. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Holly Rickman
Primary Examiner
Art Unit 1773